

TUBE DECOMPRESSION AFTER DISTAL COLECTOMY

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Paper read at the Annual Clinical Meeting of the Association of Surgeons and Physicians of Malta in December 1971.

Defunctioning of the proximal colon after resection of the distal colon and anastomosis is a well-recognised procedure. It is not always carried out after pelvic colectomy or anterior resection of the rectum. The indications vary with the preferences of the surgeon, but most surgeons would agree that the more distal the anastomosis the more essential it is to carry out defunctioning. Hence, it is most often used in low anterior resections and less often in high anterior resections. Even with pelvic colectomy, however, it is carried out if for technical reasons the surgeon is not too happy with the anastomosis or if there is much loading of the proximal colon with faeces — to mention just two indications. The form of defunctioning is most often a transverse colostomy, but a caecostomy may be preferred by others. Defunctioning obviously protects the anastomosis during the initial all important healing phase.

There is, however, another method of producing decompression of the proximal

colon that is rarely described. It has been used on 8 consecutive patients with carcinoma of the pelvic colon or recto-sigmoid junction over a twelve month period: October 1970-October 1971. After the pelvic colectomy or anterior resection has been carried out and continuity of the large bowel has been restored by end-to-end anastomosis in two layers followed by re-peritonealisation of the raw areas in mesentery or pelvic floor, i.e. just before closing the abdomen, a rubber rectal tube, 30Fr, 30 inches long and $\frac{3}{8}$ inch in external diameter is passed by an assistant through the anus into the rectum and is guided by the surgeon through the anastomosis and up the descending colon near to the region of the splenic flexure or even into the distal transverse colon. Once the surgeon is satisfied that it is lying snugly in place, the tube, which now protrudes from the anus for only about 6 inches, is sutured firmly to the skin around the anus so that there is no possibility of its slipping out or its being pulled out. The abdomen is then closed in layers in the usual way, after inserting a tube drain down to the site of the anastomosis through a separate stab wound out in the left flank. All

the patients have been able to get up and walk around or sit down in spite of having 6 inches or so of tube protruding from the anus. The tube was not specially attended to in any way until it was completely removed from 5 to 7 days after operation.

A short summary of the eight cases now follows. There were six male and two females with ages ranging from 50 to 74: 3 in age group 50-59; 2 in age group 60-69; 3 in age group 70-79. A mass was palpable per rectum in 3 of the cases and in another 2 some blood was found on the withdrawn fingerstall. Barium enema showed the new growth in 6 of the cases while the other 2 cases were radiologically diagnosed as diverticular disease and normal respectively. Sigmoidoscopy revealed a growth in 3 out of 6 cases, and an inflamed colon in a fourth. A pelvic colectomy was carried out in 4 cases and an anterior resection in the other 4 cases. The adenocarcinoma was limited to the colon in 4 patients, had invaded the mesenteric lymphnodes in another 2 and invaded the ileum and its mesentery and the extracolonic fat in the remaining two.

Pyrexia was the most common postoperative complication, occurring in 6 patients: low grade, below 100°F. in 4 and above 100°F. in the other 2 who developed a postoperative "chest". Abdominal distention occurred in 3 patients but gave rise to some anxiety only in one, where despite the passage of flatus and faeces by tube, the distension continued for several days after removal of the tube. This patient spent 26 days in hospital postoperatively. There was a slight purulent discharge from the lower end of the main incision in 3 of the cases but this soon cleared up. It is pertinent to point out that floss nylon was used to repair the wounds of all 8 patients. One patient developed persistent diarrhoea, having his bowels open five or six times a day. He had had, in addition to a colectomy, a resection of a long segment of the ileum the mesentery of which was involved by the carcinoma. The attempt to control his diarrhoea, with some success in the end, accounted for his staying in hospital for 29 days after his operation.

Another patient developed a coron-

ary thrombosis on the 14th day after operation when he was due to be discharged — he was hence discharged on the 29th day after operation. The other 5 patients were discharged 15 to 19 days after operation. The average postoperative stay in hospital for all 8 patients was 20 days. Goligher *et al.* (1970) stated that the average postoperative stay in hospital of a large Goligher *et al.* (1970) stated that the average postoperative stay in hospital of a large series of patients who had high anterior resection without dehiscence was seventeen days, while if dehiscence occurred the stay lengthened to 35 days. None of the 8 patients had difficulty in passing flatus per rectal tube which also allowed the passage of faeces in some cases. None of the patients, with the exception of the one already mentioned, had difficulty in having his or her bowels open after removal of the rectal tube. None of the few complications mentioned can be ascribed to the use of the rectal tube. All 8 patients are at present alive and well.

The 4 patients who had an anterior resection and at least one of those who had a pelvic colectomy would have had a transverse colostomy carried out as a de-functioning procedure in the normal course of events. Butler (1971) states he performed a protective transverse colostomy on 38% of patients undergoing primary colectomy and on 56% of patients undergoing anterior resection for cancer. In a large series of anterior resections, Goligher *et al.* (1970) performed simultaneous colostomy on 41%, though most of these were for low resections. However, they were unable to determine the influence of the transverse colostomy on the incidence of postoperative anastomotic dehiscence on account of the unfavourable nature of the patients, though they would have expected an even higher incidence of faecal fistula without a transverse colostomy. Goligher *et al.* (1970) also stated after a careful study of their series that 40% of patients undergoing high anterior resection and fully 69% of those undergoing low anterior resection develop anastomotic dehiscence whether of minimal or major degree.

Though a transverse colostomy (or cae-

costomy) has undoubted advantages, it has a number of definite disadvantages. For obvious reasons, patients do not relish this ectopic anus, no matter how temporary. In fact, it was the pleadings in this respect of the first patient in this series, a deaf woman of 50 years, that induced me to give the tube decompression method a try. A colostomy increases a patient's length of stay in hospital quite considerably. Eventual closure of the colostomy has its own particular morbidity and mortality. Breakdown and leakage, i.e. faecal fistula, occurred in 23% of a series of colostomy closures studied by Knox *et al.* (1971).

Hence, a method of decompressing the proximal colon, that protects the distal anastomosis after pelvic colectomy or anterior resection, which obviates the disadvantages of a colostomy and is at the same time safe, would appear to be a very satisfactory one to attain. Such is the tube method used in this admittedly small series.

Wangensteen (1945) advocated the use of a no. 22 rectal tube though he passed it just beyond the anastomosis and withdrew it gradually over several days. On the other hand, Mayo (1952) simply preferred stretching the anus widely. Jackman and Beahrs (1968) dismiss the rectal tube as a plug that traumatises the ana-

stomosis. Goligher (1967) has given up both the rectal tube and stretching the anus with, he states, no apparent alteration in results and goes on to say that his present practice of establishing a temporary colostomy in (low) anterior resections reduces their relevance. On the other hand, Drobni and Ineze (1969) use the rectal tube for six to seven days after anterior resection to prevent distension of the suture line with success.

In conclusion, decompression by rectal tube after distal colectomy appears to work satisfactorily and should reduce, at least, if it does not abolish, the practice of a transverse colostomy.

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